

Abstract

Stem cells from human sources can have a variety of useful applications in disease treatment and biotechnology. More particularly the umbilical cord matrix cell cultures of the invention have a variety of totipotent, pluripotent, or multipotent cells for a variety of end uses from a non-controversial, universally available, species-specific source. The technology can have application to any amniotic animal, including agricultural and laboratory animals and humans. The invention relates to isolating the stem cells, culturing the stem cells, maintaining the stem cells, transforming the stem cells into useful cell types using genetic or other transformation technologies, stem cell and tissue banking and using untransformed or transformed cells in disease treatment.